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CLAIMS

1. A method for remotely inspecting properties of communicating devices, comprising the steps of:

10 providing an inspector library containing executable code which is invoked as part of a continual relevance evaluation process; and

providing one or more remote inspector methods for remotely performing any of mathematico-logical calculations, executing computational algorithms, returning the results of system calls, accessing the contents of storage devices, and querying said communicating devices.

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2. The method of Claim 1, further comprising the steps of:

communicating a query between a consumer computer and a remote computer, expressing precisely said query contents, wherein said remote computer is alert for incoming queries;

20 proving identity at each end of said communication;

said remote computer communicating an answer back to said consumer computer;

expressing said query in a language so an advice author is accessing a remote inspector method at said remote computer.

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3. The method of Claim 1, said one or more remote inspector methods performing one or more remote physical measurements.

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4. The method of Claim 3, wherein said one or more remote physical measurements comprise any of position, temperature, voltage, and status of a process.

5 5. The method of Claim 3, wherein said one or more remote physical  
measurements comprise a relevance clause for targeting individuals whose  
system time is incorrectly set.

10 6. The method of Claim 1, said one or more remote inspector methods  
performing one or more remote device queries.

15 7. The method of Claim 6, wherein said one or more remote device queries is  
provided to a currently selected printer to determine if said printer is properly  
configured.

20 8. The method of Claim 1, said one or more remote inspector methods  
performing remote computation.

9 9. The method of Claim 8, wherein said one or more remote computations  
comprise a calculation specified by any of a formula, program, or script provided  
by said one or more remote inspector methods.

25 10. The method of Claim 1, said one or more remote inspector methods  
performing one or more remote database queries.

11. The method of Claim 10, wherein said one or more database queries  
anonymously and proactively targets employees listed in an organizational  
database.

30 12. The method of Claim 1, said one or more remote inspector methods  
performing remote relevance invocation.

5 13. The method of Claim 12, wherein said remote relevance invocation passes a relevance clause to a remote device and obtains a result, as evaluated by said remote device in said device's environment.

14. The method of Claim 1, further comprising the step of:

10 providing a trust relationship between a consumer computer requesting remote service and a device or computer fulfilling said request to allow automatic evaluation of relevance.

15. The method of Claim 1, further comprising the step of:

15 providing a personal information access protocol, wherein an advice provider authors advisories which refer not only to properties of a consumer computer and its environment, but also to properties accessible by query from said consumer computer.

20 16. The method of Claim 15, said personal information access protocol comprising the steps of:

25 a consumer anonymously initiating a subscription, wherein the act of subscription does not divulge said consumer's identity or attributes and wherein there is no registration process associated with said subscription;

25 a consumer advice reader anonymously gathering advice from an advice site, wherein the act of gathering advice does not divulge said consumer's identity or attributes and wherein advice is made freely and anonymously available;

30 said consumer advice reader evaluating said advice for relevance, wherein the act of evaluating relevance does not divulge said consumer's identity or attributes;

35 said consumer advice reader displaying a document authored by an advice provider, explaining why a certain advisory is relevant, and proposing a solution/response; and

5        said consumer evaluating said document and, potentially, accepting said proposed solution/response, wherein the act of passively viewing a relevant advisory does not divulge said consumer's identity or attributes.

17. The method of Claim 1, further comprising the step of:

10        providing a mechanism for issuing advisories warning against any of unethical, ineffective, errant, or bad sites or advisories;

      wherein said warning is issued against any of one specific message, messages with certain contents, or messages on certain topics.

15        18. The method of Claim 1, further comprising the step of:

      providing a protocol for information exchange over open public networks which imposes a high standard of information ethics.

19. The method of Claim 16, wherein said subscription step comprises the step 20 of interacting between said consumer and a consumer's own advice reader, but not between said consumer and an external advice provider.

20. The method of claim 19, said consumer's advice reader obtaining from said consumer a selection of advice sites of interest and storing those on said consumer's computer only as part of a database maintained locally by a 25 subscription manager component of said consumer's advice reader.

21. The method of Claim 16, further comprising the step of:

      using a proxy server for consumers having static IP addresses who do 30 not wish to divulge their true IP address.

22. The method of Claim 1, further comprising the step of:

      providing a central authority for offering an anonymous advice gathering server which accepts advice gathering requests from consumers, strips said

5 advice gathering requests of return addresses, routes said advice gathering requests to advice sites, and forwards returned information to said consumer.

10 23. The method of Claim 16, said advice gathering step always accessing all documents available at a certain site, which are not already present on a consumer machine, wherein no selection of any kind is performed at gathering time, and wherein relevance is determined only after all advice is gathered and stored on said consumer computer.

15 24. The method of Claim 16, wherein said advice reader does not apply recommended solution operators automatically, but only after consumer approval.

20 25. The method of Claim 16, further comprising the step of:

configuring said advice reader to restrict a domain of allowed relevance checking to a domain where said consumer has physical control.

25 26. The method of Claim 25, said configuring step comprising any of the steps of:

disallowing conditional evaluation of clauses;

randomly reordering subexpressions for conditional evaluation;

always forcing evaluation of subexpressions involving network activity; and

decoupling network activity from relevance evaluation.

30 27. The method of Claim 16, further comprising the step of:

providing an anonymous selective update protocol, in which each advisory message is abstracted into a short form consisting of at least a message identifier referring to an original advisory, and in which said advice reader ensures that it has at least an abstract for each message by issuing requests for all abstracts of all advisories that are new since a previous synchronization.

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28. The method of Claim 16, further comprising the step of:

providing random gathering, wherein said advice reader requests full advisory bodies for some advisories whose relevance clauses are not relevant.

10 29. The method of Claim 16, further comprising the step of:

providing a proxy server, which anonymously forwards advisory body requests to an advice site, and thereby masks to said advice site the identity of a requester.

15 30. The method of Claim 16, further comprising the step of:

providing a proprietary server.

31. The method of Claim 16, further comprising the step of:

providing a centralized remailer by the use of anonymous mailing lists.

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32. An apparatus for remotely inspecting properties of communicating devices, comprising:

an inspector library containing executable code which is invoked as part of a continual relevance evaluation process; and

25 one or more remote inspector methods for remotely performing any of mathematico-logical calculations, executing computational algorithms, returning the results of system calls, accessing the contents of storage devices, and querying said communicating devices.

30 33. The apparatus of Claim 32, said one or more remote inspector methods performing one or more remote physical measurements.

5 34. The apparatus of Claim 33, wherein said one or more remote physical  
measurements comprise any of position, temperature, voltage, and status of a  
process.

10 35. The apparatus of Claim 33, wherein said one or more remote physical  
measurements comprise a relevance clause for targeting individuals whose  
system time is incorrectly set.

15 36. The apparatus of Claim 32, said one or more remote inspector methods  
performing one or more remote device queries.

20 37. The apparatus of Claim 36, wherein said one or more remote device queries  
is provided to a currently selected printer to determine if said printer is properly  
configured.

25 38. The apparatus of Claim 32, said one or more remote inspector methods  
performing remote computation.

30 39. The apparatus of Claim 38, wherein said one or more remote computations  
comprise a calculation specified by any of a formula, program, or script provided  
by said one or more remote inspector methods.

40. The apparatus of Claim 32, said one or more remote inspector methods  
performing one or more remote database queries.

30 41. The apparatus of Claim 40, wherein said one or more database queries  
anonymously and proactively targets employees listed in an organizational  
database.

5 42. The apparatus of Claim 32, said one or more remote inspector methods  
performing remote relevance \nvocation.

43. The apparatus of Claim 42, wherein said remote relevance invocation  
passes a relevance clause to a remote device and obtains a result, as evaluated  
10 by said remote device in said device's environment.

44. The apparatus of Claim 32, further comprising:

means for providing either of a trust relationship or authentication between  
a consumer computer requesting remote service and a device or computer  
15 fulfilling said request to allow automatic evaluation of relevance.

45. The apparatus of Claim 32, further comprising:

20 a personal information access protocol, wherein an advice provider  
authors advisories which refer not only to properties of a consumer computer and  
its environment, but also to properties accessible by query from said consumer  
computer.

46. A personal information access protocol comprising:

25 means for a consumer to anonymously initiate a subscription, wherein the  
act of subscription does not divulge said consumer's identity or attributes and  
wherein there is no registration process associated with said subscription;

30 a consumer advice reader for anonymously gathering advice from an  
advice site, wherein the act of gathering advice does not divulge said consumer's  
identity or attributes and wherein advice is made freely and anonymously  
available;

35 said consumer advice reader evaluating said advice for relevance,  
wherein the act of evaluating relevance does not divulge said consumer's identity  
or attributes; and

5 said consumer advice reader displaying a document authored by an advice provider, explaining why a certain advisory is relevant, and proposing a solution/response;

10 wherein said consumer evaluates said document and, potentially, accepting said proposed solution/response, wherein the act of passively viewing a relevant advisory does not divulge said consumer's identity or attributes.

47. The apparatus of Claim 32, further comprising:

a mechanism for issuing advisories warning against unethical sites.

15 48. The apparatus of Claim 32, further comprising:

a protocol for information exchange over open public networks which imposes a high standard of information ethics.

20 49. The apparatus of Claim 46, wherein said subscription initiating means comprises means for interacting between said consumer and a consumer's own advice reader, but not between said consumer and an external advice provider.

25 50. The apparatus of claim 49, said consumer's advice reader obtaining from said consumer a selection of advice sites of interest and storing those on said consumer's computer only as part of a database maintained locally by a subscription manager component of said consumer's advice reader.

51. The apparatus of Claim 46, further comprising:

30 a proxy server for consumers having static IP addresses who do not wish to divulge their true IP address.

52. The apparatus of Claim 32, further comprising:

a central authority for offering an anonymous advice gathering server which accepts advice gathering requests from consumers, strips said advice

5 gathering requests of return addresses, routes said advice gathering requests to  
advice sites, and forwards returned information to said consumer.

10 53. The apparatus of Claim 46, said advice gathering always accessing all  
documents available at a certain site, which are not already present on a  
consumer machine, wherein no selection of any kind is performed at gathering  
time, and wherein relevance is determined only after all advice is gathered and  
stored on said consumer computer.

15 54. The apparatus of Claim 46, wherein said advice reader does not apply  
recommended solution operators automatically, but only after consumer  
approval.

20 55. The apparatus of Claim 46, further:  
means for configuring said advice reader to restrict a domain of allowed  
relevance checking to a domain where said consumer has physical control.

25 56. The apparatus of Claim 55, said configuring means performing any of:  
disallowing conditional evaluation of clauses;  
randomly reordering subexpressions for conditional evaluation;  
always forcing evaluation of subexpressions involving network activity; and  
decoupling network activity from relevance evaluation.

30 57. The apparatus of Claim 46, further comprising:  
an anonymous selective update protocol, in which each advisory message is  
abstracted into a short form consisting of at least a message identifier referring to  
an original advisory, and in which said advice reader ensures that it has at least  
an abstract for each message by issuing requests for all abstracts of all  
advisories that are new since a previous synchronization.

5 58. The apparatus of Claim 46, further comprising:

means for providing random gathering, wherein said advice reader requests full advisory bodies for some advisories whose relevance clauses are not relevant.

10 59. The apparatus of Claim 46, further comprising:

a proxy server, which anonymously forwards advisory body requests to an advice site, and thereby masks to said advice site the identity of a requester.

60. The apparatus of Claim 46, further comprising:

15 a proprietary server.

61. The apparatus of Claim 46, further comprising:

a centralized remailer by the use of anonymous mailing lists.